

CLAIMS

What is claimed is:

1. A mold for forming a golf ball having a core, the mold comprising:
 - (a) at least one internal molding cavity for receiving said core, said cavity defining an outer spherical surface; and
 - (b) at least two sets of members associated with each cavity, said first set of members for contacting a first side of the core and said second set of members for contacting a second side of the core, each set further including at least two, separate parts where each part has at least two projections at a free end for contacting the core, said parts being movable between an extended position where the projections are spaced from the outer spherical surface and contact the core, and a retracted position where the projections form a portion of the outer spherical surface of the cavity.
2. The mold of claim 1, wherein the projections are hemispherical in shape.
3. The mold of claim 1, wherein each projection forms a portion of a hemispherical shape.
4. The mold of claim 1, further including:
 - (a) a first mold plate having at least one first hemispherical cavity and said first set of members associated therewith;
 - (b) a second mold plate having at least one second hemispherical cavity and said second set of members associated therewith such that upon mating the first mold plate with the second mold plate, each first hemispherical cavity and each second hemispherical cavity form each molding cavity, each first set of members movable through the first mold plate and each second set of members movable through the second mold plate.
5. The mold of claim 4, wherein each part is a pin.

- 1 6. The mold of claim 5, wherein each pin of the first set is unaligned with each pin of
2 the second set.
- 1 7. The mold of claim 5, wherein each pin of the first set is aligned with each pin of the
2 second set.
8. The mold of claim 4, wherein each set of members includes at least three parts.
9. The mold of claim 1, wherein each part is a portion of a sleeve.
10. The mold of claim 10, wherein the sleeve has a circular perimeter.
- 1 11. The mold of claim 1, wherein the projections on each part are spaced from one
2 another.
- 1 12. The mold of claim 1, wherein the projections on each part are spaced from the
2 perimeter of the member.
- 1 13. The mold of claim 1, further including at least one runner terminating in at least one
2 gate for flowing a molten material into said cavity; and an injection unit for injecting said
3 molten material through each runner into each cavity.
- 1 14. A mold for forming a golf ball having a core, the mold comprising:
2 (a) at least one internal molding cavity for receiving said core; and
3 (b) at least one pin having a first end, a spaced, second end, and at least two
4 projections at the second end for contacting the core, each pin has a non-circular cross-
5 sectional shape between the first end and the second end.
- 1 15. The mold of claim 14, wherein the cross-sectional shape includes at least two
2 substantially circular portions.

24. The mold of claim 23, wherein the stationary member includes a non-circular cross-section between the free end and a spaced end.

25. The mold of claim 23, wherein the stationary member includes at least three projections.

26. The mold of claim 25, wherein the projections are hemispherical in shape.

27. The mold of claim 23, wherein the stationary member includes at least one primary vent cutout in the outer surface.

28. The mold of claim 27, wherein the stationary member further includes at least one secondary vent in the outer surface extending from the primary vent.

29. The mold of claim 28, wherein the primary vent has a first depth and the secondary vent has a second depth greater than the first depth.

30. The mold of claim 23, further including at least one runner terminating in at least one gate for flowing a molten material into said cavity; and an injection unit for injecting said molten material through each runner into each cavity.

31. A method of molding a golf ball comprising the steps of:

(a) providing a core;

(b) providing at least one internal molding cavity defining an outer spherical surface;

(c) providing at least one pin having at least two projections at a free end of each pin for contacting the core;

(d) placing said core between the pins so that the core is centered within the cavity;

(e) disposing material in said cavity until the material covers said core and forms a layer; and

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11 (f) solidifying the material of the layer such that the projections on each pin
12 form corresponding depressions in the layer.

1 32. The method of claim 31, further including providing pins with hemispherical
2 projections such that the resulting depressions are dimples.

1 33. The method of claim 31, wherein the step of providing the core further includes
2 providing the core with at least one layer of material on a center.

1 34. The method of claim 31, wherein the step of providing pins further includes
2 providing non-movable pins.

1 35. The method of claim 31, wherein the step of providing pins further includes
2 providing movable pins.

1 36. The method of claim 31, wherein the layer is a cover having at least one of a dimple
2 coverage of greater than about 60 percent, a hardness from about 35 to 80 Shore D, or a
3 flexural modulus of greater than about 500 psi, and wherein the golf ball has at least one of
4 a compression from about 50 to 120 or a coefficient of restitution of greater than about 0.7.